

5517

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: South Carolina

DESCRIPTIVE REPORT

Topographic } Sheet No. 9 5517
Hydrographic }

LOCALITY

Port Royal Sound

Trenchards Inlet

193 4

CHIEF OF PARTY

Lt. I. E. Rittenburg

U. S. GOVERNMENT PRINTING OFFICE: 1923

5517

838

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

SEP 27 1934

Acc. No. _____

REG. NO. 5517

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 9

REGISTER NO. **5517**

State South Carolina

General locality Port Royal Sound

Locality Port Royal Sound, Mary River **Trenchards Inlet** ←

Scale 1 : 10 000 Date of survey March-May, 1934

Vessel Shore Party #15

Chief of Party I. E. Rittenburg

Surveyed by J. A. McCormick, M. D. Cooper and W. C. Huebner

Protracted by A. E. Inledon

Soundings penciled by A. E. Inledon

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by _____

Inked by H. L. Flemer

Verified by " " "

Instructions dated Nov. 2, 1933, 19

Remarks: _____

DESCRIPTIVE REPORT TO ACCOMPANY HYDRO. FIELD SHEET #9,
STATION CREEK, TRENCHARDS INLET, STORY RIVER, SOUTH CAROLINA.
H&T PROJECT #160.

1. INSTRUCTIONS:

This survey was made in accordance with orders and instructions dated Nov. 2nd, 1933.

2. AREA COVERED AND JUNCTIONS:

The area covered by this survey lies between; Lat. 32-16.5--Long. 80-39 the junction point with Hydro. Field Sheet #10, Port Royal Sound and Lat. 32-20.2--Long. 80-32.5, a junction with work, 1934 season, of M V Natoma, through Station Creek about 10 miles; From Lat. 32-19.3--Long. 80-33.7 to Lat. 32-15--Long. 80-36.3, through Trenchards Inlet. No connection was attempted with H-4153, 1921, although a portion is overlapping. It is planned to conduct a resurvey of the area covered by H-4153, 1921, which will connect in Trenchards Inlet. An extreme radical change has been noted at the entrance to Trenchards Inlet and Coles Care; From Lat. 32-18.7--Long. 80-33.4 to a junction with work, 1934 season, of M V Natoma in Lat. 32-19.4--Long. 80-32.2 through Story River.

3. SURVEY METHODS AND CONTROL:

Control was based on the triangulation of C. A. Egner, 1931-33. Supplemental stations were located by at least three intersecting cuts obtained with a plane table and alidade. Hydrography was entirely controlled by three point sextant fixes.

4. DISCREPANCIES:

None.

5. CHANNELS:

Within the limits of this survey; 6 feet can safely be carried through a channel partially marked by beacons #3 and #6 in Station Creek from Beaufort River to the junction with M V Natoma's work at Triangulation Station BEND. On entering Station Creek from Beaufort River it is necessary to lay 400M. South of NUN buoy--N-2--, marking Beaufort River channel, thence a course 100M. West of Station Creek Beacon #3 to the turn. This is necessary to avoid a long shoal, partially exposed at Mean Low Water, making from Station Island Southward. see review
par. 9

20 feet can be carried with caution through an unmarked channel in Trenchards Inlet from the Southerly limit of this survey to a junction with Station Creek in Lat. 32-19.3--Long. 80-33.7.

8 feet can be safely carried through an unmarked channel in Story River from Trenchards Inlet to the junction with M V Natoma's work, 1934 season, in Lat. 32-19.4--Long. 80-32.2. see review
par. 9

There is one small tributary entering Station Creek from the North in Lat. 32-19.2--Long. 80-34.9 with a safe depth of 15 feet to its mouth, in Station Creek, from both Trenchards Inlet and Triangulation Station BEND, 8 feet can safely be carried through about $\frac{1}{2}$ mile it's length and from this point three smaller tributaries branch, dropping off to a depth of 4 feet in about $\frac{1}{4}$ mile their length. 11

13 ft. least depth at Lat. 32-19.6, Long. 80-34.8'

5. CHANNELS: Continued.--

There are three small tributaries entering Trenchards Inlet. One from the West in Lat. 32-18.3--Long. 80-34.3 and two from the East in Lat. 32-18--Long. 80-33.6 and Lat. 32-17.4--Long. 80-34.4, the latter Pritchards Inlet. None of these tributaries are of any consequence, having a safe depth of 6 feet at their mouth's and rising to zero in about $\frac{1}{2}$ mile their length.

6. DANGERS:

There are four principal dangers within the limits of this survey: A shoal at the entrance to Station Creek, from Beaufort River, making from Station Island Southward to Lat. 32-16.4--Long. 80-38.9 at which point a depth of 3 feet occurs, rising to exposure at Mean Low Water, Northward, in 250M. This shoal is unmarked except for the Beaufort River channel, NUN buoy-N-2.

In Lat. 32-18.3--Long. 80-36.5 and Lat. 32-18.6--Long. 80-36.5 Two small islands occur. There appears to be a channel on either side of these islands but the main channel is to the Eastward. The head of the Northernmost island is marked by Beacon #6.

In Lat. 32-19.4--Long. 80-35.8 a rather large island occurs. The main channel lies to the Northward of this island. The apparent channel to the Southward has a least depth of 3 feet at the Western entrance. The main channel is unmarked in this vicinity. 2 ft on smooth sheet.

At the outer entrance to Trenchards Inlet, Bull point has built outward to the South-West about 400M. Coles Care has changed slightly in form but has built up considerably. these latter dangers are also unmarked but the entrance channel is wide and changes are easily apparent.

7. COMPARISON WITH PREVIOUS SURVEYS:

The previous surveys of this area, H-832, 1863, are so old that no comparison of any value can be made. No very radical changes are apparent except in the vicinity of Bull Point and Coles Care, at the outside entrance to Trenchards Inlet.

see review
par. 6, c.

8. TIDES:

A standard automatic tide gage was operated at Parris Island for the entire duration of this survey. In addition, tide reducers were obtained from portable automatic gage's installed at the Beaufort County dock, in Station Creek, at the West entrance to Station Creek and at Beaufort, S.C.

9. STATISTICS:

Statute miles of sounding lines-----	216.7
Number of soundings-----	5760
Number of positions-----	2122

10. LANDMARKS FOR CHARTS:

Charts #1240 and #571 were examined. There are few landmarks in this area but all that are suitable are charted.

I. E. Rittenburg, Lieut.
Coast & Geodetic Survey,
Chief-Of-Party.

A. O. Dority
Coast & Geodetic Survey
Draftsman.

* The northernmost of the two islands referred to is a mud bank covered at high water. (see letter of Jan. 15, 1935 from Chief of Party, filed in this report.) J.G.L.

Mr. Ellis

La e

November 10, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 5517

Locality Trenchard Inlet-Station Creek, Port Royal Sound, South Carolina

Chief of Party: I. E. Rittenburg in 1934

Plane of reference is mean low water, reading

1.4 ft. on tide staff at County Wharf, Station Creek

10.5 ft. below B.M. 1

2.2 ft. on tide staff at West Entrance, Station Creek

9.3 ft. below B. M. 6

Height of mean high water above plane of reference is 6.9 feet at
County Wharf and 6.7 feet at West Entrance, Station Creek.

Condition of records satisfactory except as noted below:

H. H. Warner

Acting Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No.

The following statistics will be submitted with the
cartographer's report on the sheet:

Number of positions on sheet	2122.
Number of positions checked	235
Number of positions revised	2
Number of soundings recorded	5760
Number of soundings revised	6
Number of signals erroneously plotted or transferred	0

Date:.....

Cartographer:.....

Verification of protracting
Verification & inking of rocks and shoals) by H.L. FLEMER

Time: 30hr

Verification of inking by

" " "

Time: 60hr

Review by

John G. Ladd

Time: 19½ hr

H 5517 -

Names in Desc Rept,
should correspond to
those on charts. If local
usage is different, Report
should be made.

Inquiry to be made as to
Pritchards Inlet, Frenchards
Inlet ~~and Coleridge~~ Bull Pt

H.B., Oct. 15, 1934

To: Mr. Bacon
From L. S. S.

Survey No. H5517

GEOGRAPHIC NAMES

Date: October 12, 1934

S. C.

Chart No. 1240

Diagram No. 1240-2

Names underlined in red approved Oct. 15, 1934

H.B. Bacon

* Approved by the Division of Geographic Names, Department of Interior.

Ø, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
<i>H.B.</i>	-----	<u>Port Royal Sound</u>	-----	-----	32° 15.0' 80° 38.0'
<i>H.B.</i>	-----	<u>Bull Pt.</u> <i>held.</i> <u>St Michaels Hd.</u> (571, Aug Apr. 1924)	-----	-----	32° 15.7' 80° 35.3'
<i>H.B.</i>	-----	<u>Capers I.</u> (USGB)	-----	-----	32° 16.6' 80° 34.3'
<i>H.B.</i>	-----	<u>Trenchards Inlet</u> (D.G.N.) <u>Trenchard Inlet</u> <u>Trenchards Inlet</u> (T 840 & T 3814) is marked out	-----	-----	32° 17.9' 80° 35.0'
<i>H.B.</i>	-----	<u>Pritchards Inlet</u> (D.G.N.) <u>Pritchard Inlet</u> <u>Pritchards Inlet</u> (T 840 and T 3814) is marked out	-----	-----	32° 17.3' 80° 33.9'
<i>H.B.</i>	-----	<u>Pritchards I.</u> (D.G.N.) <u>Pritchard I.</u> <u>Pritchards I</u> (T 840 & T 3814) is marked out	-----	-----	32° 18.1' 80° 31.9'
<i>H.B.</i>	-----	<u>Story River</u>	-----	-----	32° 18.9' 80° 32.7'
<i>H.B.</i>	-----	<u>Station Creek</u>	-----	-----	32° 18.1' 80° 36.5'
<i>H.B.</i>	-----	<u>St Phillips Island</u> (D.G.N.) (USGB)	-----	-----	32° 17.3' 80° 36.4'
<i>H.B.</i>	-----	<u>Bay Point</u>	-----	-----	32° 15.6' 80° 38.4'
<i>H.B.</i>	-----	<u>Coles Care</u> <i>See Chart 571</i> <i>Mentioned in Rec. Rpt. but not located.</i>	-----	-----	32° 15.6' 80° 36.7'
		<u>MORSE I. CREEK</u> <i>OK/H.B.</i>			32° 16.5' (M 100) 80° 38'

Report on H. 5517.

1. The records conform to the general instructions.
2. The usual depth curves can be drawn.
3. The field plotting was complete and accurate.
4. Since no topographic sheet was available at this time no changes or additions were made in the drafting.
5. The junction with H. 5518 to the west appears to be satisfactory. No junction was made with Port Royal Sound as this area is subject to radical change and no contemporary survey is recorded. The area to the east is being surveyed and until the records are available no junction can be made. ✓
6. Remarks.
 - a. Two shoal spots are described in Vol. 1, pages 24 and 25. (Position 138A and 148A, ^{approximate} lat. $32^{\circ}18'$, long. $80^{\circ}36'$, vicinity of Sig. MER and JOE). These two dangers were not indicated on either the smooth sheet or boat sheet and their described location conflicts with the soundings shown. see review
part. 1/2
 - b. There is a small island of indefinite ^{*} extent at lat. $32^{\circ}18'.5$, long. $80^{\circ}36'.5$ in Station Creek. The descriptive report states that 6 feet may be safely carried through this creek; that the deeper channel lies to the east of this island and beacon #6 marks its northernmost end. The plotted soundings give a controlling depth of $2\frac{1}{2}$ feet (154A) in the east channel and 4 feet (between 5 and 6G) in the west channel. Beacon #6 is about 100 M. upstream from the island. * located by
6 detached
position.
 - c. The controlling depth in Story River is $6\frac{1}{2}$ feet at its junction with Trenchard Inlet. ✓
 - d. No copy of Form 567 (Landmarks for charts) was found in the files although the field party ^{in the S.A.} states that suitable landmarks have been charted. ✓
 - e. The approval of Chief of Party was not found. ✓
 - f. No Lighthouse Service chart covering this area was found. ✓

Submitted by H. L. Flemer.

~~80~~ *Lt. Green*

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

1935 JAN - 17 - AM 10:16

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

ANSWERED
JAN 10 1934
DIVISION OF CHARTS

P. O. Box 869, Pensacola, Fla.,
Jan. 15, 1935.

To: The Director,
Coast & Geodetic Survey.

From: I. E. Rittenburg, Lieut.,
Coast & Geodetic Survey.

Subject: Hydrographic Sheet H 5517 (field number 9)
Reference your letter of Jan. 12, 1935, 80-DRM

Receipt of your letter of Jan. 12, 1935 ref. number 80-DRM is hereby acknowledged. The photostat of a section of sheet H 5517 is enclosed and returned.

You are advised that the mud bank shown and marked as area A on the enclosed photostat is covered at High Water. At area B the word shoal does not refer to the existence of a shoal but means shallow water. The sounding line is run on the northeast edge of an area of shallow water which extends all the way to the west bank. At area C there is a small sand bank which bares at low water. This note was put in the record book so that at a later date this shoal could be accurately located. Unfortunately this was overlooked. To the best knowledge of the hydrographer who did this area this sand bank has been spotted in red pencil on the photostat. It is believed that this spotting is fairly accurate.

I. E. Rittenburg
I. E. Rittenburg, Lieut.,
Coast & Geodetic Survey.

CKG
S

80-DRM

January 12, 1935.

To: Lieut. Isidor Rittenburg,
U. S. Coast and Geodetic Survey,
P. O. Box 869,
Pensacola, Florida.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Hydrographic sheet H 5517 (field number 9).

There is inclosed herewith a photostat of a section of hydrographic sheet H 5517 (field number 9) on which three areas are indicated. Area A, which carries the notation "Mud bank" on the sheet, is referred to in the descriptive report as an island. The air photo does not clearly define this feature. Please advise whether this area is a high water feature.

At areas B and C the records refer to "Shoal" and "Sand bank" respectively. In neither case are these features shown on either the boat or smooth sheet. Please indicate on the inclosed photostat the necessary information to properly show these features.

(Signed) J. H. HAWLEY
Acting Director.

Inclosure.

Photostat of section of U. S. Coast and Geodetic Survey
Hydrographic Sheet No. H-5517, registered in Archives at
Washington, D. C. Surveyed in 1934 on scale 1: 10,000.
Scale of photostat, 1: 10,000. Soundings in feet
at mean low water. Date: Jan. 4, 1935



80-CFT

January 18, 1935.

To: Lieut I. E. Rittenburg,
Coast and Geodetic Survey,
P. O. Box 869,
Pensacola,
Florida.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Hydrographic Sheet H-5517 (field number 9)
Reference your letter of January 15, 1935.

Receipt is acknowledged with thanks of your letter of January 15, in which you have furnished additional information for your Hydrographic Sheet H-5517.

In reply to your recent inquiry, you are advised that the sizes of day letters and position numbers as inked by your draftsman on Hydrographic Sheet H-5517 are satisfactory.

(Signed) R. S. PATTON
Director.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5517 (1934)

Trenchard Inlet, Port Royal Sound, S. Carolina
Instructions dated November 2, 1933 (Natoma)
Surveyed in 1934

Hand Lead Soundings

3 Point Fixes on Shore Objects

Chief of Party - I. E. Rittenburg.
Surveyed by - J. A. McCormick, M. D. Cooper.
Protracted and Soundings Plotted by - A. E. Inledon.
Verified and Inked by - H. L. Flemer.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual with the following exceptions:

- a. There was no approval note by the Chief of Party in the Descriptive Report.
- b. The chart, showing aids to navigation for use of the Lighthouse Bureau has not been received in the office.
- ~~c. No approval note by the Chief of Party was submitted.~~

2. Compliance with Instructions.

The survey complies with the instructions for the project, with the exception that no regular system of cross lines were run as called for in par. 14.

While the main creeks and inlets have been surveyed, there are other creeks where the depths at the entrances indicate a navigable channel that have not been surveyed. While the descriptive report (page 2) mentions the fact that these creeks are of no consequence, as they are only navigable for $\frac{1}{2}$ mile, a line of soundings to indicate their extent would have been desirable.

3. Sounding Line Crossings.

The few cross lines that result from the work as well as a comparison of the closely spaced adjacent lines show good agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn including most of the zero foot curve.

5. Junctions with Contemporary Surveys.

- a. A satisfactory junction is made with H-5518 (1934) on the north of the entrance to the Beaufort River.

b. Junctions with surveys on the east, south and west will be considered in the reviews of those surveys when they are received in the office.

6. Comparison with Prior Surveys.

a. H-535 (1855-1856), H-649 (1853-1857) and H-802 (1862).

These surveys make a small overlap with the new work at the entrance to Station Creek and Trenchard Inlet. The development on the old surveys is very sparse, and the changes have been so radical that a detailed comparison between the two would serve no useful navigational purpose.

b. H-832 (1863).

This is the only survey that covers the entire area of the present survey. The agreement between the two surveys is satisfactory with the following exceptions:

(1) The shoal with the 11 foot (charted) least depth, at Lat. $32^{\circ}17.35'$, Long. $80^{\circ}34.5'$, and the shoal with the 15 foot (charted) least depth, at Lat. $32^{\circ}17.7'$, Long. $80^{\circ}34.4'$, fall on the new survey in depths of 15 and 21 feet, respectively. Considering the fact that the area is changeable, the development on the new survey at these spots is deemed sufficient to prove the present non-existence of these two shoals.

(2) The shoal with the charted 5 foot sounding at Lat. $32^{\circ}19.55'$, Long. $80^{\circ}32.8'$ falls on the new survey in depths of 8 to 10 feet. The new survey, however, shows a 7 foot sounding about 70 meters to the southwest, which is the least depth on the shoal. This area was rather sparsely developed on the old survey, whereas the present survey shows a sufficient development to indicate that a deepening has occurred here. The 5 foot depth should be disregarded in future charting.

(3) At the entrances to Station Creek and Trenchard Inlet, radical differences are noted, a condition quite common at the mouths of such creeks and inlets.

(4) The general depths in the creeks proper show some minor differences, with the indication that a slight deepening has occurred.

c. H-2119 (1892) and H-2259 (1896).

These two surveys cover a portion of the new survey at the entrance to Station Creek. The agreement is only fair, but since this area is a changeable one, the soundings on H-5517 (1934) should supersede those on H-2119 (1892) and H-2259 (1896).

d. H-3898 (1916).

This survey overlaps the new work at the entrance to Station

Creek and is in satisfactory agreement with it. The new survey is on larger scale and in considerably greater detail, and within its limits should supersede the 1916 survey for charting.

e. H-4153 (1920).

This survey, which overlaps the present survey at the entrance to Trenchard Inlet is in good agreement in spots only. The discrepancies are undoubtedly due to the radical change that has taken place in this area.

The 17 foot sounding (charted) at Lat. $32^{\circ}17.2'$, Long. $80^{\circ}34.85'$ falls on the new survey in depths of about 30 feet. An examination of the records for H-4153 (1920) shows that the position for this sounding is probably erroneous and if plotted on time would agree with depths on the new survey. It should be disregarded in future charting.

7. Comparison with Chart 571.

Within the area of the present survey, the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review with the following exceptions:

a. Aids to Navigation.

(1) Beacon No. 3 located by the topographic party at Lat. $32^{\circ}16.7'$, Long. $80^{\circ}38.6'$, is about 120 meters north and 110 meters east of the position as shown on the chart.

(2) Buoy N 2 located by 3 point fix at Lat. $32^{\circ}16.45'$, Long. $80^{\circ}39.05'$ is about 40 meters north of the position as shown on the chart.

8. Field Plotting.

The field plotting was satisfactory.

9. Controlling Depths.

A number of controlling depths as given in the Descriptive Report under "Channels" and "Dangers" are not borne out by the conditions as shown on the smooth sheet. Examples of these are the following: The controlling depths in Station Creek is 4 feet (Lat. $32^{\circ}18.45'$, Long. $80^{\circ}36.6'$) and not 6 feet as given in the D. R. The controlling depth in Story River is $6\frac{1}{2}$ feet over the bar and not 8 feet as indicated in the D. R.

In the absence of further information, the controlling depths as shown by the survey should be used in charting.

10. Additional Field Work Recommended.

This survey is complete except for the survey of some of the minor creeks mentioned in paragraph 2, this review.

11. Superseding Old Surveys.

Within the area covered, the present survey supersedes the following surveys for charting purposes:

H- 535 (1855-1856)	In Part.
H- 649 (1853-1857)	" "
H- 802 (1862)	" "
H- 832 (1863)	Entirely.
H-2119 (1892)	In Part.
H-2259 (1896)	" "
H-3898 (1916)	" "
H-4153 (1920)	" "

12. Reviewed by - John G. Ladd, December, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green, *C. K. Green*
Chief, Section of Field Records.

B. Borden
Chief, Section of Field Work

L. O. Tolbut
Chief, Division of Charts.

G. H. de
Chief, Division of H. & T.

Applied to Cht. 571, Mar. 19, 1935

K. Reynolde

Applied to Chart 793 June 26, 1936. H.E. MacEwen.

25 Jan 13, 1926